



Clean version of the substitute specification.

## **HEAD MEMBER, METHOD FOR INK-REPELLENT TREATMENT AND APPARATUS FOR THE SAME**

### **TECHNICAL FIELD**

*OK b-wenter 12/27/04*

The present invention relates to a head member of an ink-jet recording head, a method of ink-repellent treatment for the head member and an apparatus for the same, more particularly to the one subjected to ink-repellent treatment by polymerization treatment using perfluorocarbon and carbon tetrafluoride as needed.

Moreover, the present invention relates to a method for removing fluorocarbon resin in micropores and an apparatus for the same, more particularly to a method for removing fluorocarbon resin in ejection ports of a head member of an ink-jet recording head and an apparatus for the same.

### **BACKGROUND ART**

In the ink-jet recording head, a constitution is adopted, in which a nozzle plate as a head member has a large number of micro ejection ports to eject ink, the micro ejection ports being formed to be separated at a micro interval from one to another. Fig. 13 is a sectional view of the nozzle plate of the ink-jet recording head. This nozzle plate 200 is provided with ejection ports 202 to eject ink 201. As shown in Fig. 13(a), the ink 201 is ejected from ejection surfaces 203 of the ejection ports 202 toward a printing surface.

However, as shown in Fig. 13(b), attached ink 204 sometimes remains on tip surfaces (ejection surfaces) 203 of the nozzle plate 200. In such a case, when ink 205 ejected the next